NAUMOVA, N. A.

Agriculture

Analysis of seeds for fungi and bacterial infection, Sel'khozgiz, 1951

Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

1. NAUMOVA, N.A.

2. USSR (600)

7. "Data for Founding the Permissible Norms of Infectedness of Wheat Seeds by Stinking Smut", Trudy Vsesoyuzn. In-ta Zashchity Rasteniy (Works of the All-Union Institute of Plant Protection), No 3, 1951, pp 101-114.

9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

NAUMOVA, N. A.

Analiz semian na gribnuiu i bakterial'nuiu infektsiiu (Analysis of seeds for fungi and bacterial infection). Sel'khozgiz, 1951, 140 p.

SO: Monthly List of Russian Accessions, Vol 6, No. 3, June 1953

RCM NAUMOVA, N.A.

Наумова (Мme N. A.). Влияние температурных условий роста яровой пшеницы на пораженность ее бурой ржавчиной. [The effect of temperature on the susceptibility of spring Wheat during the growth period to brown rust.]—Бот. журн. [*J. Bot. U.S.S.R.*]. 36, 1, pp. 39–46. 1951.

As a result of field tests at Leningrad, Rostov-on-Don, Bezenchuk, and Irkutsk wheat varieties were classified according to their resistance to brown rust (*Puccinia triticina*) [*R.A.M.*, 15, p. 562; 29, p. 296; 30, p. 151] into three groups: highly resistant, fairly resistant, and those, such as Marquis, Hope, Garnet, Thatcher, *turcicum* 23819, *lutescens* 22711, *lutescens* 062, and *hordeiforme* 027, whose susceptibility varied greatly with the external temperatures during the early growth period. At the Pan-Soviet Institute for Plant Protection, Leningrad, the effect of different sowing dates upon the resistance of the above mentioned varieties to two races, 20 and 17, of the rust was studied in the greenhouse. It was found that there

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was a correlation between temperature during early phases of development and resistance during earing. This relationship was clearer for race 20 than for 17. During the early phases low or moderate temperatures caused an improved resistance to rust while high temperatures increased susceptibility. When the average temperatures during the shooting and tillering period did not exceed 8·7° C., the varieties Marquis, Garnet, and Hope were highly resistant, but they became extremely susceptible when these temperatures exceeded 13·1° to 16·9° (Marquis), 13·4° (Hope), and 13·1° (Garnet). Thatcher, *hordeiforme* 027, *turcicum* 23619, and *luteorm* 22711 tended to resist the disease during earing when the average temperature during their early development did not exceed 5° to 15°, but showed an increased susceptibility at 13° to 18°. Further studies are needed to establish the critical average temperature for each variety.

NAUMOVA, N. A.

NAUMOVA, N.A.

Using ultraviolet rays to test seeds of agricultural crops for hidden fungus infections. Biofizika 2 no.3:376-377 '57. (MIRA 10:8)

1. Vsesoyuznyy institut zashchity rasteniy Vsesoyuznoy Akademii sel'skokhozyaystvennykh nauk imeni Lenina
(ULTRAVIOLET RAYS--INDUSTRIAL APPLICATIONS)
(SEEDS--TESTING) (FUNGI, PHYTOPATHOGENIC)

NAUMOVA, Nadezhda Aleksandrovna; REUTSKAYA, O.Ye., red.; CHUNAYEVA, Z.V., tekhn.red.

[Seed analysis for fungal and bacterial infection] Analiz semian na gribnuiu i bakterial'nuiu infektsiiu. Izd.2. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 196 p. (MIRA 13:5)
(Seed adulteration and inspection) (Plant diseases)

NAUMOVA, N.A., kand.sel'skokhoz.nauk

Harmfulness of stripe rust infecting wheat seeds. Zashch. rast. ot vred. i bol. 5 no.9:21-22 S '60. (MIRA 15:9)
(Stripe rust)
(Wheat--Diseases and pests)

NAUMOVA, N.A.; TOPOLOVSKIY, V.A.

How to assemble a fluorescent microscope. Biul.Glav. bot. sada no.39:98-100 '60. (MIRA 14:5)

1. Vsesoyuznyy institut zashchity rasteniy.
(Fluorescence microscopy)

NAUMOVA, Nadezhda Aleksandrovna; REUTSKAYA, O.Ye., red.; BARANOVA, L.G., tekhn. red.

[Potato late blight] Fitoftora kartofelia. Leningrad, Izd-vo sel'khoz. lit-ry, zhurnalov i plakatov, 1961. 180 p. (MIRA 15:3)

(Potatoes—Diseases and pests) (Fungi, Phytopathogenic)

SHELAMOVA, A.S.; NAUMOVA, N.A.

Using alkali for the peeling of horse-radish and parsley roots. (MIRA 15:6)
Kons.i ov.prom. 17 no.7:19-20 Jl '62.

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy i ovoshchesushil'noy promyshlennosti.
(Root-crops--Preservation)
(Canning and preserving--Equipment and supplies)

SHELAMOVA, A.S.; NAUMOVA, N.A.; SHELAPUTIN, V.I.; DERBEDENEVA, Z.A.

Dehydrofreezing of fruit and vegetables. Kons. i ov. prom. 18 no.8:15-18 Ag '63. (MIRA 16:8)

1. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy i ovoshchesushil'noy promyshlennosti (for Shelamova, Naumova).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut kholodil'noy promyshlennosti (for Shelaputin, Derbedeneva).
(Food, Frozen)

SHELAPUTIN, V.I., kand.tekhn.nauk; DERBEDENEVA, Z.A., inzh.; SHELAMOVA, L.S., kand.khim.nauk; NAUMOVA, L.A., inzh.

Dehydrofreezing of vegetables and fruits. Khol.tekh. 40 no.3:30-32 My-Je '63. (MIRA 16:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kholodil'noy promyshlennosti (for Shelaputin, Derbedeneva). 2. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy i ovoshchesushil'noy promyshlennosti (for Shelamova, Naumova).
(Refrigeration and refrigerating machinery—Research)
(Food,Frozen)

NAUMOVA, Nadezhda Aleksandrovna; ZHDANOVA, L.N., red.

[Potato late blight] Fitoftora kartofelia. 2. perer. i dop. izd. Leningrad, Kolos, 1965. 187 p. (MIRA 18:12)

NAUMOVA, N.A.

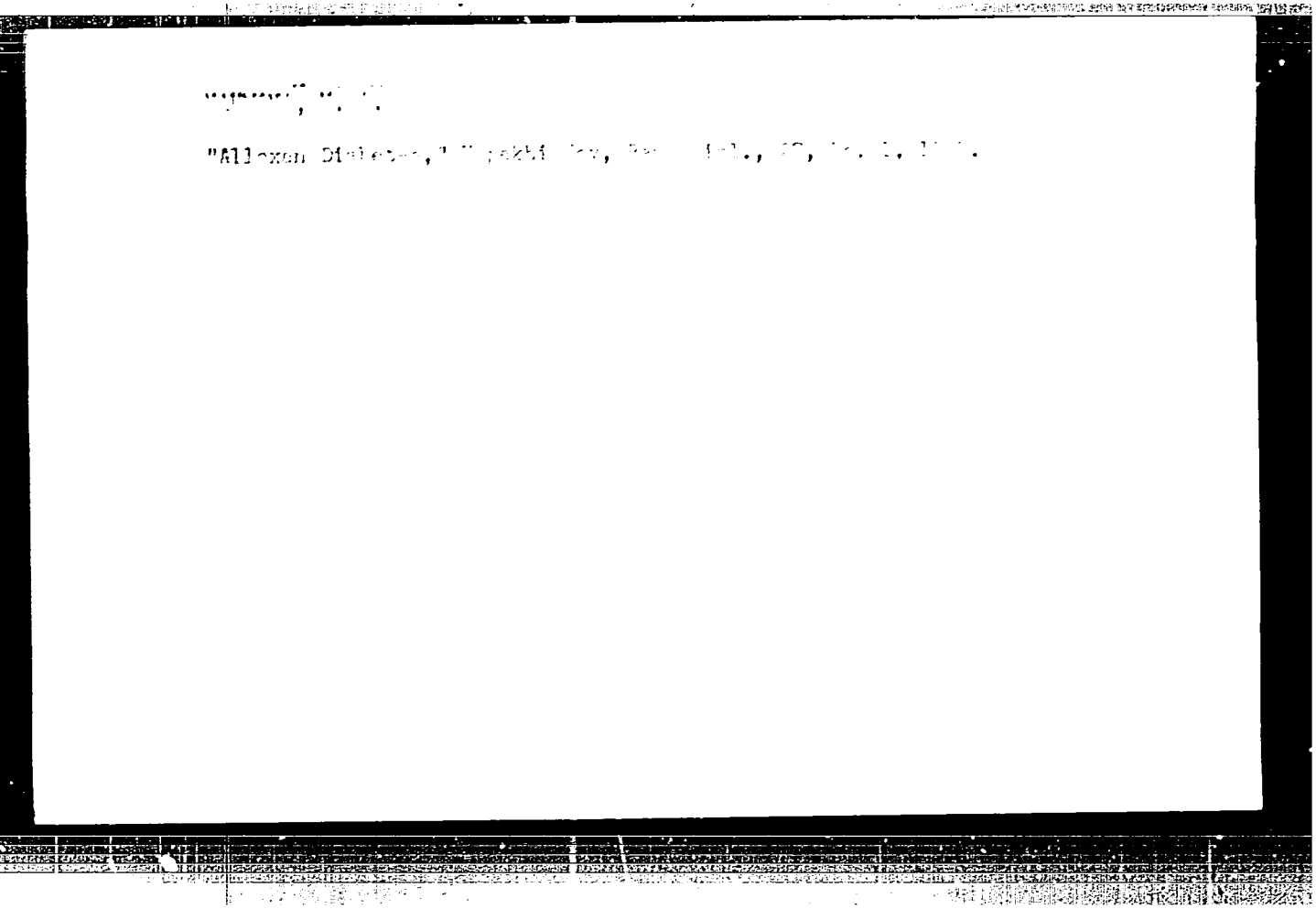
PROCESSES AND PROPERTIES INDEX

Ca 17

Stability of insulin in solutions. The role of endoproteases. N. A. Naumova. *Problemy Endokrinol.* (U. S. S. R.) 5, No. 2, 99-103(1940).—The activities of enzymes obtained from suprarenal glands were detd. by treatment in 10 cc. of acetate buffer soln. (pH 3.0 or 3.0) with 10 cc. of 10% horse serum (previously boiled in 20 drops of toluene) for 48 hrs. at 37°, pptg. residual N with CCl_3CO_2H, diln. to 50 cc. with H_2O and detg. N according to Kjeldahl in 10 cc. of the filtrate (semimicro method). A blank detn. is made without horse serum. Enzymes obtained from the suprarenal glands according to the method of Lintner were very active. It is possible that the decrease of activity of commercial insulin depends on the presence of proteases in the soln. if the pH of the soln. rises to 3.0 and higher. Seven references.

W. R. Henn

ASO-SLA METALLURGICAL LITERATURE CLASSIFICATION



BUNINA, B.Z.; BELOZOROV, P.T.; NAUMOVA, N.A.; KORSUNSKAYA, R.M.

Nervous system manifestations in various forms of tuberculosis. Probl. tuberk., Moskva no. 6:30-36 Nov-Dec 1952. (CIML 23:5)

1. Professor for Bunina; Candidate Medical Sciences for Belozorov. 2. Of the Therapeutic Division (Head -- Prof. B. Z. Bunina) and the Pathophysiological Laboratory (Head -- Candidate Medical Sciences P. T. Belozorov) of the Ukrainian Tuberculosis Institute (Director -- Prof. B. M. Khmel'nitskiy) and of the Ukrainian Psychoneurological Institute (Director of Neurological Clinic -- Prof. A. I. Geymanovich).

NAUMOVA, N.A.

Effect of small doses of alloxan on the pancreas. Fiziol.zhur. 6 no.1:96-100 Ja-F '60. (MIRA 13:5)

1. Kiyevskiy meditsinskiy instituta im. akad. A.A. Bogomol'tsa, kafedra patofiziologii i Khar'kovskiy institut tuberkuleza.
(ALLOXAN) (PANCREAS)

NAUMOVA, N.A.

Stimulation of the insular system of the pancreas by small doses of insulin. Probl. endok. i gorm. 7 no.1:53-56 '61. (MIRA 14:3)

(INSULIN) (PANCREAS)

NAUMOVA, N.A.

Effect of small doses of alloxan on diabetic rabbits. Fiziol. zhur. [Ukr.] 7 no.1:70-75 Ja-F '61. (MIRA 14:1)

1. Department of Pathological Physiology of the Kiev Medical Institute.
(ALLOXAN) (DIABETES)

NAUMOVA, N. A.

VINOGRADOV, A. M. Tekhnik i NAUMOVA, N. A. Arkh., OVCHINNI[illegible] V, A. A. Arkh.

Nauchno-issledovatel'skiy institut arkhitektury zhilishcha Akademii Arkhitektury SSSR

Karkasno-shchitovyye i shchitovyye derevyannyye odnoetazhnyye doma zavodskogo izgotovleniya massovogo tipa
Page 71

SO: Collections of Annotations of Scientific Research Work on Construction, completed in 1950.
Moscow, 1951

OSTERMAN,N.A., kandidat arkhitektury; NAUMOVA,N.A., inzhener;
KHRUSTOV,S.Ya., inzhener; SHAPOVALOV,I.S., inzhener

Plans for apartment houses designed by GLAVSTANDARTDOM. Rats.i izobr.predm. v stroi. no.102:15-24 '55. (MLRA 8:10)
(Buildings, Prefabricated)

NAUMOVA, N.A.

ZAL'TSMAN, A.M.; NAUMOVA, N.A.; FRIDBERG, G.V., inzh., red. izd-va; DMITRIYEVA, M.L., arkhitektor, red.izd-va; STRELETSKIY, I.A., tekhn.red.

[Principles in designing standard apartment houses] Printsipy proektirovaniia tipovykh zhilykh domov. Moskva, Gos. izd-vo lit. po stroit. i arkhit., 1957. 86 p. (MIRA 11:4)
(Apartment houses)

SOFINSKIY, I.D.; BLOKHIN, P.M.; GEL'BERG, L.A.; ZHDANOV, P.M.; IVASHCHENKO, I.P.; LEVINA, G.P.; NAUMOVA, N.A.; SMIRNOV, N.S.; ABONOVA, R.I.; NIKOLAYEV, N.A.; SHEREMETSIS, A.M.; KOVALEVSKIY, I.I.; LOBACHEV, P.V.; SLADKOV, S.P.; DZIGAN, A.V.; FORAFONOV, N.K. Prinimali uchastiye: ARGANSKIY, A.S.; ASMUS, Ye.M.; BEZHALOVA, Ye.M.; BOGATYKH, Ya.D.; BUKHNIN, V.A.; GOL'DING, N.P.; DOMSHLAK, I.P.; MOSKALEV, S.A.; RABINOVICH, S.G.; ROGOVSKIY, L.V.; KHOKHLOVA, L.P.; SHESTOPAL, N.M.; KUBANENKO, B.R., glavnyy red.; GALKIN, Ya.G., zamest.glavnogo red.; SAPRYKIN, V.A., red.; SHCHEPETOV, V.M., red.; NOVITCHENKO, K.M., nauchnyy red.; VILKOV, G.N., inzh., red.izd-va; TYAPKIN, B.G., red. izd-va; EL'KINA, E.M., tekhn.red.

[Building your own home] Spravochnik individual'nogo zastroishchika. Moskva, Gos.izd-vo lit-ry po stroit.materialam, 1958. 442 p. (MIRA 12:2)

1. Akademiya stroitel'stva i arkhitektury SSSR.
(Building)

NAUMOVA, N.A.

Theoretical principles of the recording of plant diseases developed by A.A. IAchevskii. Trudy VIZR no.23:149-154 '64. (MIRA 19:2)

ATAMANCHUKOV, G.D.; [illegible], A.[illegible]; [illegible]; NAUMOVA, [illegible]

Use of heat treated [illegible] "[illegible] trap" sticky substance. [illegible] prom. [illegible]
[illegible]

1. TSentral'nyy nauchn[illegible] (for Atamanchukov). 2. [illegible] (for [illegible], Yefimenko, Naumova).

BARDYSHEV, I.I.; YEFIMENKO, V.I.; ERILANE, A F.; NAUMOVA, N.I.

Continuous esterification of rosin. Gidroliz. i lesokhim.prom. 17 no.2:20-21 '64. (MIRA 17:4)

1. Institut fizicheskoy i organicheskoy khimii AN Belorusskoy SSR (for Bardyshev). 2. Kiyevskiy lesokhimicheskiy kombinat (for Yefimenko, Erilane, Naumova).

NAUMOVA, N.K.

FD-3312

USSR/Medicine - Paratyphoid B, Heidelberg Type

Card 1/1 : Pub 148-8/24

Author : Maslov, A. I. and Naumova, N. K.

Title : Certain problems involved in the epidemiology and microbiology of Heidelberg's infection [Paratyphoid B, Heidelberg type]

Periodical : Zhur. mikro. epid. i immun. 10, 42-45, Oct 1955

Abstract : Heidelberg microorganisms were observed in the stools of patients hospitalized in the dysentery department, in clinically healthy carriers, in wash water used to clean objects used in the preparation of food, in pork, and in the excrement of a hog. Heidelberg bacteria were eliminated by patients hospitalized for dysentery for from 1 day to as long as 2 1/2 months. From its action on the human organism, the authors conclude that it should occupy a place in the Salmonella group intermediate to Schottmuller and Breslau bacteria. The article is illustrated by one chart. No references are cited.

Institution : A Sanitary-Epidemiological Station (Head Physician - I. S. Naumov)

Submitted : September 30, 1954

KOSTYUKOV, V.A.; STUKALKIN, A.N.; NAUMOVA, N.K.

Contactless revolution relay. Sbor. nauch. trud. EINII 2:186-195 '62. (MIRA 16:8)

(Electric relays)
(Electric locomotives—Brakes)

NAUMOVA, N.N.

Species of Saprolegniaceae new to Leningrad Province (Saprolegniacearum regionis Leningradensis species novae). Bot.mat.Otd.spor. rast. 10:134-137 Ja '55. (MLRA 8:7)
(Leningrad Province--Molds (Botany))

NAUMOVA, N.N.

New species of fungi on barberries (Species novae fungorum in Berberide vulgari L.). Bot.mat.Otd.spor.rast. 10:163-164 Ja '55. (MLRA 8:7)

(Barberries--Diseases and pests) (Fungi)

LAVROVA, M.Ya.; NAUMOVA, N.N.

Some characteristic features of mouse life in forest shelterbelts. Trudy Inst.geog. no.66:150-166 '55. (MLRA 8:7)
(Mice) (Windbreaks, shelterbelts, etc.)

NAUMOVA, N.N.

New methods of prepairing entomological collections. Priroda 45 no.8:127 Ag '56. (MLRA 9:9)

1.Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova.
(Insects--Collection and preservation)

NAUKOVA, N.V.

Young naturalists in the Khakass Autonomous Province. Biol. v shkole no. 3:64-65 My-Je '58. (MIRA 11:8)

1. Khakasskiy oblastnoy institut usovershenstvovaniya uchiteley Krasnoyarskogo kraya.
(Khakass Autonomous Province--Agriculture--Study and teaching)

NAUMOVA, O.A.

Effect of mastication on vascular reactions in man. Opyt izuch. reg.fiziol.funk. no.3:30-43 '54. (MLRA 8:12)

1. Kafedra normal'noy fiziologii Leningradskogo meditsinskogo stomatologicheskogo instituta
(MASTICATION) (REFLEXES) (VASCULAR SYSTEM)

NAUMOVA, O.A.

Changes in the higher nervous activity as an effect of the total amount of organic substances in room air. Uch.zap. Mosk.nauch.-issl.inst.san. i gig. no.3:60-61'60. (MIRA 16:7)
(CONDITIONED RESPONSE) (AIR—POLLUTION)
(RESPIRATION)

SILAYEVA, Ye.M.; NAUMOVA, O.A.; GINZBURG, Ye.G.

Role of the oxygen factor in preventing increased coagulability of the blood in experimentally induced nervous tension. Trudy Gos. nauch.-issl. psikhonevr. inst. no.24:61-65 '61. (MIRA 15:5)

1. Patofiziologicheskaya laboratoriya Gosudarstvennogo nauchno-issledovatel'skogo psikhonevrologicheskogo instituta imeni Bekhtereva.
(STRESS (PHYSIOLOGY)) (BLOOD—COAGULATION)

NAUMOVA, O.A., kand.med.nauk; EL'PINER, L.I., kand.med.nauk

Scientific conference on hygienic problems in water transportation.
Gig. i san. 26 no.11:99-102 N '61. (MIRA 14:11)
(NAVAL HYGIENE)

ZELIGER, N. B.; ADIGHATEV,; NAUMOVA, P. A.; CHANTZOY, S. D.
NAUMOVA, P. A.

"Telegraph Foundations," Moscow, The State Publishing of Literature on problems of Communications and Radio, 1950.

MERTSLIN, R.V.; NIKURASHINA, N.I.; NAUMOVA, P.I.

Transition temperatures of multiphase liquid states. Zhur.ob. khim. 32 no.5:1365-1368 My '62. (MIRA 15:5)

1. Saratovskiy gosudarstvennyy universitet.
(Phase rule and equilibrium)

NAKOV, Liuben; NAUMOVA, Roza, inzh.

Use of polyethylene in the gluing of garment parts. Tekstilna prom 12 no.4:22-24 '63.

KOSTOV, V., inzh.; NAKOV, L.; SAVCHEV, Ch., inzh.; NAUMOVA, R., inzh.

Fireproof finishing of cellulose fiber articles. Trud Inst tekstil prom 3:21-34 '62.

NAUMOVA, Roza, inzh., [illegible]V, Chavdar, inzh.

A reexamination of some technological processes for the boiling and bleaching of flax yarn and fabrics and the recurrent method of bleaching with hypochlorite and hydrogen peroxide. Tekstilna prom 11 no.6:25 '62.

NAUMOVA, R., inzh., nauchen sutrudnik; SAVCHEV, Ch., inzh., nauchen sutrudnik

Bleaching of linen yarn and cloth. Trud Inst tekstil prom 4:71-83 '63.

SEMENOV, S.M.; KORCHAGIN, V.B.; NAUMOVA, R.G.; SAVUSHKINA, L.N.

Study on the stability of the antiphage action of fumagillin.
Antibiotiki 9 no.1:81-84 Ja '64. (MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov, Moskva.

NAUMOVA, R.M.

NAUMOVA, R.M. (Moskva)

Intravenous injections. Med. sestra no.1:15-19 Ja '55. (MLRA 8:3)
(INJECTIONS,
intravenous, technic)

NAUMOVA, R.P.

Comparative study of napthalene-oxidizing bacteria in underground waters. Mikrobiologiia 29 no.3:415-418 My-Je '60. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i inzhenernoy geologii.
(PSEUDOMONAS) (NAPHTHALENE)
(PETROLEUM--BACTERIOLOGY)

NAUMOVA, R. P., kand. med. nauk (Odessa)

Diagnostic and prognostic significance of serum aminopherases in Botkin's disease. Klin. med. no.2:58-62 '62. (MIRA 15:4)

1. Iz kafedry infektsionnykh bolezney (zav. - prof. L. K. Korovitskiy) Odesskogo meditsinskogo instituta imeni N. I. Pirogova (dir. - zasluzhennyy deyatel' nauki prof. I. Ya. Deyneka) i gorodskoy infektsionnoy bol'nitsy (glavnyy vrach L. T. Zhidovlenko)

(TRANSAMINASES) (HEPATITIS, INFECTIONS)

NAUMOVA, R. P.

"Precipitation Reaction for the Diagnosis of Helminthiasis (Ascaridae and Taeniarhynchus)." Cand Med Sci, Odessa Medical Inst, Odessa, 1953. (RZhBiol, No 7, Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

NAUMOVA, R.P.

Antigenic properties of Ascaris and Taenia saginata. Med. paras. i paras. bol.24 no.2:114-117 Ap-Je '55. (MLRA 8:10)

1. Iz kafedry infektsionnykh bolezney (zav.-prof. L.K.Korovitskiy) i kafedry biokhimii (zav.-prof. D.A.Tsuverkalov) Odesskogo meditsinskogo instituta imeni N.I.Pirogova.

(ASCARIS,
lumbricoides, antigenic properties)
(TAENIA,
saginata, antigenic properties)
(ANTIGENS AND ANTIBODIES,
ascaris lumbricoides & Taenia saginata antigenic properties)

ROZENBAUM, M.G.; NAUMOVA, R.P.

Clinical aspects and treatment of black wolf spider bites. Vrach. delo no.2:191-194 F '56. (MLRA 9:7)

1. Kafedra infektsionnykh bolezney (zaveduyushchiy professor L.K. Korovitskiy) Odesskogo meditsinskogo instituta i Odesskaya gorodskaya protivomalyariynaya stantsiya
(VENOM--PHYSIOLOGICAL EFFECT) (SPIDERS)

Naumova R.P.

KOROVITSKIY, L.K., professor; NAUMOVA, R.P.

Course of recurrent and lingering forms of pneumococcal meningitis. Vrach.delo no.5:477-479 My '57. (MIRA 10:8)

1. Klinika infektsionnykh bolezney Odesskogo meditsinskogo instituta i gorodskaya infektsionnaya bol'nitsa
(MENINGITIS)

BOGOMOLOVA, T.T. [Bohomolova, T.T.]; NAUMOVA, R.P.

Use of brucello-hydrolysates in diagnosing brucellosis in man.
Mikrobiol.zhur. 21 no.4:44-47 '59. (MIRA 12:11)

1. Iz Odesskogo meditsinskogo instituta.
(BRUCELLOSIS diag)

NAUMOVA, R.P.

Variations of the clinical course of poisoning caused by the karakurt. Med.paras. i paraz.bol. 28 no.2:227-228 Mr-Ap '59. (MIRA 12:6)

1. Iz kafedry infektsionnykh bolezney Odesskogo meditsinskogo instituta imeni N.I.Pirogova (dir.instituta - prof.I.Ya.Deyneka, zav.kafedroy - prof.L.K.Korovitskiy) i Odesskoy gorodskoy infektsionnoy bol'nitsy (glavnyy vrach L.I.Zhidovlenko).

(ARACHNIDISM
Latrodoctus tredecimguttatus bites, variations of clin. course (Rus))

NAUMOVA, R.P., kand.med.nauk (Odessa)

Clinical characteristics of anicteric and "low icteric" forms of Botkin's disease. Fel'd. i akush. 25 no.4:32-34 Ap '60. (MIRA 14:5)

(HEPATITIS, INFECTIOUS)

KRIVAYA-USHERENKO, N.I.; NAUMOVA, R.P.

Skin test for the diagnosis of infectious hepatitis. Vrach. delo no. 1:98-100 '61. (MIRA 14:4)

1. Virusologicheskaya laboratoriya (zav. - prof. Ya.K.Gimmel'farb) Odesskogo instituta epidemiologii i mikrobiologii i kafedra infektsionnykh bolezney (zav. - prof. L.K. Korovitskiy) Odesskogo meditsinskogo instituta.
(HEPATITIS, INFECTIOUS)

NAUMOVA, R. P., kand. med. nauk; STEFANSKAYA, A. V.

Diagnosis of effaced forms of Botkin's disease. Vrach. delo no.3:109-112 Mr '62. (MIRA 15:7)

1. Kafedra infektsionnykh bolezney (zav. - prof. L. F. Korovitskiy) Odesskogo meditsinskogo instituta.

(HEPATITIS, INFECTIOUS)

NAUMOVA, R.P., kand.med.nauk

Some severe complications with the use of antibiotics in suppurative meningitis. Vrach. delo no.5:83-85 My '62.
(MIRA 15:6)

1. Kafedra infektsionnykh bolezney (zav. - prof. L.K. Korovitskiy) Odesskogo meditsinskogo instituta i gorodskaya infektsionnaya bol'nitsa.
(MENINGITIS)
(ANTIBIOTICS--TOXICOLOGY)

GRINBERG, G.I., dotsent; NAUMOVA, R.P., kand.med.nauk

Course of the toxic forms of diphtheria in recent years. Ped., akush. i gin. 24 no.1:6-9'62. (MIRA 16:8)

1. Klinika infektsionnykh bolezney (zav. - prof. L.K. Korovitskiy [Korovyts'kyi,L.K.]) Odesskogo meditsinskogo instituta (rektor - zasluzhennyy deyatel' nauki UkrSSR I.Ya.Deyneka [Deineka, I.IA.]) i Odesskaya gorodskaya infektsionnaya bol'nitsa (glavnyy vrach - L.T.Zhidovlenko).
(DIPHTHERIA)

MARKOVA, R.P., kand.med.nauk (Odessa)

Significance of cytologic study of liver punctates in the differential diagnosis of Botkin's disease. Vrach.delo no.1:133-135 Ja '63. (MIRA 16:2)

1. Klinika infektsionnykh bolezney (zav. - prof. L.K. Korovitskiy) Odesskogo meditsinskogo instituta i gorodskaya infektsionnaya bol'nitsa Odessy.
(HEPATITIS, INFECTIOUS) (LIVER--BIOPSY)

KRIVAYA-USHIRENKO, N.I.; NAUMOVA, R.P.

Study of the skin test in the dynamics of epidemic hepatitis.
Vop.med.virus. no.9:86-90 '64. (MIRA 18:4)

1. Iz Odesskogo Instituta epidemiologii i mikrobiologii i kafedry infektsionnykh bolezney Odesskogo meditsinskogo instituta.

NAUMOVA, S. F.

Dissertation: "The Kinetics of Inhibited Polymerization of Methyl Methacrylate." Cand Chem Sci, Inst of Chemistry, Acad Sci Belorussian SSR, Minsk 1953.
W-30928

SO: Referativnyy Zhurnal, No. 5, Dec 1953, Moscow, AN USSR ([redacted])

Naumova, S. P.

The nature of amorphous abietic acid. B. V. Brutcev, S. P. Naumova, and M. V. Zaretskii. *Vestsi Akad. Navuk Belarus. S.S.R., Ser. Fiz.-Tekh. Navuk* 1956, No. 2, 93-9 (Russian summary).—By passing a stream of HCl through a cooled alc. soln. of rosin [illegible] a ppt. was obtained, which after 8-fold recrystn. from alc. gave pure cryst. abietic acid (I): b.p. 172-3°, $[\alpha]_D^{18}$ −105.2, mol. extinction coeff., ε, λ 272.5 mμ 5.25 × 10⁴ (log ε 4.72). Amorphous abietic acid (II) was then obtained by heating I at 179-80° in a vacuum glass tube or in N atm. for 5, 15, and 30 min. II prepns. obtained in vacuum or in N atm. were identical (spectroscopic analysis). However, x-ray investigation (iron anticathode, λ_α 1.932 and λ_β 1.753 A.) showed different röntgenograms for I and for the II obtained at different heating times. Spectroscopic investigation within the range of 200-350 mμ revealed that the 3 prepns. of II differ from each other and from I within the range of 200-350 mμ, although they show the same absorption spectrum at 200-280 mμ. Differences were found also in acid no. and in the sp. rotations, [α], of the prepns.: acid no. 185.2, 184.7, 170.6, and 177.2; and $[\alpha]_D^{18}$ −105.2, −103.4, −53.5, and 60.3 for I and II heated during 5, 15, and 30 min., resp. By plotting $[\alpha]_D^{18}$ against acid no. the data for the 4 acid prepns. could be located on a straight line. Also straight-line relations have been obtained by plotting acid no. against ε gained at 250, 290, or 300 mμ. Sp. rotation, [α], of a mixt. of two different prepns. of II is related to its acid no., a, by the equation: $[\alpha] = \alpha'' + (\alpha' - \alpha'')a/185.7$, where α′ = sp. rotation of the 1st component in the mixt., α″ = sp. rotation of the sec. component, and 185.7 = acid no. of pure I. It is concluded that II contains partially decarboxylated I and some other modified products of I, the amts. of which in the produced II depend on the heating time. It was shown that the II prepns. obtained during the autopolymerization process of I can form crystals from alc. solns. of II without changing their spectroscopic and x-rays characteristics. B. W.

NAZMOVA, S. F.

Kinetics of transformation of levopimaric acid in the [illegible]

product that was called isolevopimaric acid (λ_{max} = 272.5 mμ [illegible]). The activation energy [illegible] levopimaric [illegible] transformation was found to be of a noncatalytic type. At 100° abietic acid shows no isomerization. At 140° a slight decompn. of abietic acid results in liquid products. It is claimed that the formation of identical products by [illegible]

NAUMOVA, S. F. and B. V. YEROFEYEV

"Inhibitory Effect of Hydroquinone on the Polymerization of Methyl Methacrylate"

Sbornik nauchnykh rabot, vyp. 6, (Collection of Scientific Works of the Institute of Chemistry, Belorussian SSR, Academy of Sciences, No. 6) Minsk, Izd-vo AN Belorusskoy SSR, 1958, 271 pp.

NAUMOVA, S. F. and B. V. YEROFEYEV

"Thermodynamics of Some Reactions of Organic Sulfur Compounds." p. 83.

Sbornik nauchnykh rabot, vyp. 6 (Collection of Scientific Works of the Institute of Chemistry, Belourussian SSR Academy of Sciences, No. 6) Minsk, Izd-vo AN Belorusskoy SSR, 1958, 271 pp.

SOV/81-59-10-37459

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 10, p 577 (USSR)

AUTHORS: Yerofeyev, B. V., Naumova, S.F.

TITLE: On the Inhibiting Effect of Hydroquinone on Polymerization of Methylmethacrylate

PERIODICAL: Sb. nauchn. rabot In-ta khimii AS BSSR, 1958, Nr 6, pp 190-227

ABSTRACT: The kinetics of the polymerization of methylmethacrylate in the presence of hydroquinone at 65 - 80°C has been investigated. The polymerization rate obeys the equation $(v_o - v^2_{inh})/v_{inh} = (k_o'/k_o)\, k_g MC$ (v_o and v_{inh} are the rates of polymerization in the absence and the presence of an inhibitor, k_o', k_o and k_g are the constants of the rates of the rupture reactions on an inhibitor, at the interaction of two polymer radicals and the reaction of chain growth, M and C are the concentrations of the monomer and the inhibitor, respectively. A diagram of inhibition has been proposed, according to which hydroquinone breaks the reaction chain as a result of the direct interaction with the growing polymer radical with formation of ben-

Card 1/2

SOV/81-59-10-37459

On the Inhibiting Effect of Hydroquinone on Polymerization of Methylmethacrylate

zoquinone and probably semiquinone, as an intermediate product, which also break the chain.

A. Pravednikov

Card 2/2

79-28-5-38/69

AUTHORS: Yerofeyev, B. V., Yemel'yanov, N. P., Naumova, S. F.

TITLE: On the Absorption Spectrum of Cyclohexadiene-1,3 Within the Range of From 220 - 300 mμ (O spektre pogloshcheniya tsiklogeksadiyena-1,3 v oblasti 220 - 300 mμ)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 5, pp. 1284 - 1286 (USSR)

ABSTRACT: The absorption spectrum of cyclohexadiene-1,3 in the ultraviolet range has been investigated in a great number of papers (References 1-3), however, the results of different authors do not coincide. In table 1 the magnitudes found by different authors for the maximum positions and the absorption coefficients are mentioned. The given data (table 1) show that the results of different authors who investigated the absorption spectrum of cyclohexadiene-1,3 in the ultraviolet range do first of all not coincide with respect to the number of maxima on the absorption curve. It is possible that this deviation of the data of some scientists is based on the insufficient purity of the investigated product. In connection with this the authors

Card 1/2

79-28-5-38/69

On the Absorption Spectra of Cyclohexadiene-1,3 Within the Range of From 220 - 300 mμ

took the absorption spectrum of cyclohexadiene-1,3 in the ultraviolet range. The product was synthetized in the Laboratory for Technical Analysis of the Institute for Chemistry of the AS USSR and therefore can be looked upon as a purer compound than that of the other scientists. Thus the absorption spectrum of cyclohexadiene-1,3 has, contrary to earlier data, only one maximum within the ultraviolet range (220 - 300 mμ) which, as regards its vapors, comes to lie on 250.5 mμ (Lgε 3.73) and, as regards its solutions in hexane and alcohol, on λ 258 mμ (Lgε 4.00). There are 2 figures, 2 tables and 3 references, none of which are Soviet.

ASSOCIATION: Institut khimii Akademii nauk Belorusskoy SSR (Institute for Chemistry, AS Belorussian SSR)

SUBMITTED: April 29, 1957

Card 2/2

YEROFEYEV, B.V.; NAUMOVA, S.F.; TSYKALO, L.G.; ZHAVNERKO, K.A.

Polymerization of 1,3-cyclohexadiene. Dokl.AN BSSR 3 no.3:95-99 Mr '59. (MIRA 12:8)
(Cyclohexadiene)

S/081/61/000/021/093/094
B106/B203

AUTHORS: Yerofeyev, B. V., Naumova, S. P., Kulevskaya, I. V.

TITLE: Initiation of ethylene polymerization by a complex of etherates of Grignard compounds and titanium tetrachloride

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1961, 507, abstract 21R55. (Sb. nauchn. rabot. In-t Fiz.-organ. khimii AN BSSR, no. 8, 1960, 80 - 82)

TEXT: It was shown that etherates of butyl magnesium bromide and phenyl magnesium bromide synthesized in anisole at 100 - 120°C formed an active catalyst with $TiCl_4$ for the polymerization of ethylene. The polymer yield was doubled when increasing the ratio $RMgX : TiCl_4$ from 1.4 to 1.7. Etherates containing $(C_2H_5)_2O$ did not form an active catalyst with $TiCl_4$. [Abstracter's note: Complete translation.]

Card 1/1

25265 S/190/61/003/007/009/021
B101/B220

15.9203

AUTHORS: Naumova, S. F., Tsykalo, L. G.

TITLE: Thermal polymerization of cyclohexadiene-1,3

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 7, 1961, 1031-1033

TEXT: The aim of the present paper was to achieve a clarification of the widely varying publication data with regard to the polymerization of cyclohexadiene-1,3;(C_6H_8). The authors supposed that an impure initial C_6H_8 might be the reason for these different data. S. F. Naumova et al. has developed a new method for the production of pure C_6H_8 and the spectroscopic control of its purity (author's certificate no. 110964, 1958; Zh. obshch. khimii, 28, 1284, 1958). The results of the polymerization of this pure C_6H_8 are given in the present paper. Freshly distilled C_6H_8, boiling point 80.5°C, d_4^{20} = 0.8440; n_D^{20} = 1.4746; log ε = 4.00 for

Card 1/4

Thermal polymerization of ...

λ_{max} = 258 mμ, was dissolved in hexane and alcohol, filled into ampullae and liberated from air by freezing in vacuum. The sealed ampullae were heated in the thermostat at 100, 130, 155, and 200°C. The molecular weight of the polymers was determined cryoscopically in benzene. The data for a temperature of polymerization of 100-155°C are indicated in Table 1. The coefficient of polymerization amounted to 8-9 and was, thus, 4-4.5 times larger than that found by P. S. Shantorovich and I. A. Shlyapnikova (Vysokomol. soyed., 2, 1171, 1960). At 200°C, the polymerization was effected without initiator. The degree of conversion amounted already after 10 hr to 83% and increased to 88%, if the reaction lasted longer. The dimer determined after precipitation of the polymer by methanol and distillation of the solvent and monomer amounted to 33-50%, the liquid polymers having a higher molecular weight than the dimer, to 12-22%, the solid polymer to 17-33.5% of the total yield. If the reaction was continued for 40 hr, the proportion of dimer did not change. Thus, the dimer is not able to participate in the reaction. B.A. Kazanskiy and L. G. Vol'fson are mentioned. There are 2 tables and 7 references: 4 Soviet-bloc and 3 non-Soviet-bloc. The most important reference to

Card 2/4

Thermal polymerization of ... 25265 S/190/61/003/007/009/021 B101/B220

English-language publication reads as follows: A.W. Crossley, J.Chem. Soc., 85, 1403, 1904.

ASSOCIATION: Institut fiziko-organicheskoy khimii AN BSSR (Institute of Physico-organic Chemistry, AS BSSR)

SUBMITTED: September 26, 1960

Card 3/4

S/190/6·/003/0··/0·2 0·6
B·10/B·01

AUTHORS: Yerofeyev, B. V., Naumova, S. F., Kulevskaya, I. V., Mardykin, V. P., Tsykalo, L. G.

TITLE: Polymerization of ethylene in the presence of the triethyl aluminum anisolate and titanium tetrachloride complex

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. ··, 19·· ·70- - 1707

TEXT: Initiators from triethyl aluminum anisolate (A) and $TiCl_4$ (T), for ethylene polymerization have low self-inflammability. The authors studied the properties of polyethylene (PE) produced with them, and the effect of the A:T ratio on its properties. The $Al(C_2H_5)_3$ $CH_3OC_6H_5$ was prepared by reaction of bromo ethyl with Mg-Al alloys (40% Al; 60% Mg in anisole); ·.0 mole/liter of A (boiling point 97 - ·05°C/4·5 mm Hg) was dissolved in n-heptane. The $TiCl_4$ concentration in n-heptane was 0.4 moles/liter. Ethylene was pressed into the reaction vessel at ·2 liters/hr. At first n-heptane, after this $TiCl_4$ in n-heptane, and then, during · min, A in

S/190/6./003/0.. 0 2/0 .
B. 0/B101

Polymerization of ethylene in the..

n-heptane were added. After 20 min, PE was precipitated by means of
CH_3OH with 3% HCl. The tabulated values were found under atmospheric
pressure at 30°C. The density determined in water-alcohol mixture was
0.9. 0.97. With increasing A:T ratio and constant T, the molecular
weight of PE drops. Then the amount of A determines the number of
resulting polymer macromolecule chains. The A:T ratio was < ... test
.. 5 and 1.6 in test 6. While PE obtained by means of tr..sobut..
aluminum and $TiCl_4$ (Ref. 5, see below) had molecular weights of .. 000
- 940,000 and melting temperatures of 116 - 139°C, the molecular weights
of the authors' PE were 9. 000 - 316 000, the melting temperatures ..
.30°C. The decrease of the molecular weight with decreasing A. compound
$TiCl_4$ ratio observed in triisobut.. aluminum polymer ..ation is probably
due to the high excess of the former. Thus the $TiCl_4$ amount determines
the number of resulting polymer chains. There are .. tables and .. .. S..
references. The tw. references to English-language publications read as
follows: Ref. 2: A. Grosse, J. Mav..y, J. Org. Chem. .. Oc. 1940;
Ref. 5: E. Badin, J. Amer. ... .

Card 2/5

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R001136210(

ASSOCIATION: Institut fizikoorganicheskoy khimii AN BSSR (Institute of Physical and Organic Chemistry AS BSSR)

SUBMITTED: December 26, 1960

Table. Ethylene polymerization.
Legend: (;) test no.; (2) amount of initiator components; (3) millimoles; (4) polyethylene yield, g; (5) molecular weight; (6) melting point, °C.

Table

① Опыт. №	② Количество компонентов инициатора			④ Выход полиэтилена, г	⑤ Молекулярный вес	⑥ Т. пл., °С
	③ А, ммоли	③ Т, ммоли	А/Т			
1	1,23	6,0	0,21	1,37	316 000	128
2	2,47	6,0	0,41	1,98	250 000	130
3	3,70	6,0	0,62	2,60	180 000	127
4	3,51	5,0	0,70	2,34	—	—
5	4,95	6,0	0,82	2,89	91 000	130
6	6,57	4,0	1,64	2,52	91 000	130

Card 3/3

NAUMOVA, S.F.; KOVALEVA, V.N.; ZHAVNERKO, K.A.

Production of 1,2-dihydronaphthalene through 1,2,3,4-tetrahydro-1-naphtol hydroperoxide. Dokl. AN BSSR 5 no.3:109-111 Mr '61. (MIRA 14:3)

1. Institut fiziko-organicheskoy khimii AN BSSR. Predstavleno akademikom AN BSSR B.V. Yerofeyevym.
(Naphthalene) (Naphthol)

S/786/61/000/009/001/006
I065/I242

AUTHORS: B.V.Yerofeyev, S.P.Naumova, V.P.Markykin, I.V.Kulevskaya, L.G.Tsykalo

TITLE: The dependence of the molecular weight of polyethylene on the $TiCl_4/Al(iso\text{-}C_4H_9)_3$ ratio in the Ziegler catalyst

SOURCE: Akademiya nauk Belorusskoy SSR. Institut fiziko-organicheskoy khimii. Sbornik nauchnykh rabot. no.9. 1961. Monomery, svoystva i protsessy polucheniya polimerov. 59-62

TEXT: In the polymerization of ethylene initiated by a Ziegler catalyst with excess $TiCl_4$, the molecular weight of the polyethylene obtained increases with decrease of the $[AlR_3]/[TiCl_4]$ ratio. These findings disagree with the data of Badin (J.Am.Chem.Soc. 80, 6545, 1958). The polymerizations were carried out in a glass vessel equipped with mechanical stirrer, reflux condenser, gas inlet tube and a burette for the introduction of the dissolved catalyst components. Molecular weights were determined viscometrically

Card 1/3

The dependence of the molecular ...

(in decaline, at 135°C). The interpretation of the experimental results is based on the assumption of a very high value for the stability constant (K) of the complex

$$TiCl_4 + AlR_3 \rightleftharpoons TiCl_4 \cdot AlR_3$$

so that

$$K \gg \frac{1}{[TiCl_4]_o + [AlR_3]_o}$$

where the subscript o denotes initial concentrations. Then the concentration (X) of the $TiCl_4 \cdot AlR_3$ complex can be represented by the approximate expressions

$$[X]' \approx [TiCl_4]_o \quad \text{for} \quad [TiCl_4]_o < [AlR_3]_o$$

$$[X]'' \approx [AlR_3]_o \quad \text{for} \quad [AlR_3]_o < [TiCl_4] \ ,$$

the component at the lower concentration being the limiting parameter. Since the degree of polymerization is inversely proportional to the catalyst concentration ($\overline{DP} \sim [X]^{-1}$), the molecular

Card 2/3

S/786/61/000/009/001/006
I065/I242

The dependence of the molecular ...

weight of polyethylene will increase on decreasing the $[AlR_3]/[TiCl_4]$ ratio when $[AlR_3]_o < [TiCl_4]_o$, or on increasing the $[AlR_3]/[TiCl_4]$ ratio when $[AlR_3]_o > [TiCl_4]_o$. There are 3 tables.

Card 3/3

S/786/61/000/009/002/006
I065/I242

AUTHORS: B.V.Yerofeyev, S.F.Naumova, V.P.Mardykhin, O.D.Yurina, A.M.Konovalova

TITLE: The polymerization of ethylene in the presence of butyl lithium and titanium tetrachloride

SOURCE: Akademiya nauk Belorusskoy SSR. Institut fiziko-organicheskoy khimii. Sbornik nauchnykh rabot. no.9. 1961. Monomery, svoystva i protsessy polucheniya polimerov, 63-70

TEXT: Catalyst systems containing lithium organic compounds are capable of initiating stereospecific polymerizations. Maximum yields of polyethylene are obtained at a $C_4H_9Li/TiCl_4$ ratio of about 2. The activity of the catalyst depends on the atmosphere in which it was formed. Highest activities were achieved in an ethylene atmosphere, lowest in nitrogen. The purpose of this work was to study the mechanism of polymerization of ethylene with $C_4H_9Li/TiCl_4$ catalysts. A cylindrical double-jacket glass vessel,

Card 1/2

The polymerization of ethylene in ...

equipped with a mechanical stirrer, reflux condenser and gas inlet tube reaching the bottom was used for the polymerizations. The polymerization reactions were continued for 20 mins. at 30°C. The reaction mixture was poured into excess ethanol, the precipitate was collected, washed, and dried in vacuo at 80°C. Viscosities were determined at 135°C. The properties and molecular weights of the polyethylene samples obtained at different $C_4H_9Li/TiCl_4$ ratios are practically independent of catalyst composition (as long as $C_4H_9Li/TiCl_4 > 1$). The order of addition of the catalyst components is of major importance. Fourfold higher activities are obtained when C_4H_9Li solution is added to the $TiCl_4$ solution. These observations can be explained tentatively by assuming the formation of the very unstable complex 2 C_4H_9Li + $TiCl_4$. There are 3 figures and 1 table.

Card 2/2

S/786/61/000/009/003/006
I065/I242

AUTHORS: B.V.Yerofeyev, S.F.Naumova, L.G.Tsykalo

TITLE: The mechanism of thermal polymerization of 1,3-cyclohexadiene

SOURCE: Akademiya nauk Belorusskoy SSR. Institut fiziko-organicheskoy khimii. Sbornik nauchnykh rabot. no.9.1961. Monomery, svoystva i protsessy polucheniya polimerov, 71-79

TEXT: The thermal polymerization of 1,3-cyclohexadiene with the simultaneous formation of the dimer (1,4-ethylene-1,4,5,6,9,10--hexahydronaphthalene) and polymeric materials of unknown molecular weights has been studied by Hoffmann and Damm (Mitteilung Schlesisch.Kohlenforschunginstitut, 2, 97-146 (1925); Chem.Zentr., 1, 2342-2344 (1926); Chem.Abstr. 22, 1249 (1928)). The purpose of this work was to study the mechanism of this polymerization. 1,3-cyclohexadiene was prepared from cyclohexene hydroperoxide. The monomer was placed in ampules, connected to the vacuum system,

Card 1/3

degassed and sealed off under vacuum. The sealed ampules were placed in baths thermostated at between 80 and 200°C. The polymer was precipitated by the addition of four volumes of methanol. The precipitate was dissolved in benzene, reprecipitated with methanol and dried to constant weight in vacuo. The dimeric material was isolated after the first precipitation by vacuum distillation of the solvent and monomer. The quantity of trimer formed was evaluated by difference. Polymerization runs were carried out at 200, 180, 160, 130, 100 and 80°C. The dimer and trimer are probably incapable of propagating the polymerization reaction. The pure dimer did not undergo thermal polymerization. The rate of polymerization increased with rise in temperature, but the molecular weights of the polymers formed were practically identical. Longer polymerization times did not change the concentrations of dimer, trimer and polymer formed. The formation of the dimer is thus a parallel reaction and not an intermediate stage in the polymerization. The first stage of polymerization is the formation of an activated dimer molecule which can react in three possible ways (a) it can

S/786/61/000/009/003/006
I065/I242

The mechanism of thermal polymerization...

undergo inactivation, giving an inactive dimer as final product, (b) it can react with a monomer to yield benzene and cyclohexane through disproportionation, or (c) it can form an active trimer molecule which can either form a "dead" trimer through inactivation or combine with a monomer and form an active tetramer which will propagate the polymerization with the formation of high polymeric material. There are 5 figures and 2 tables.

Card 3/3

S/786/61/000/009/004/006
I065/I242

AUTHORS: B.V.Yerofeyev, S.F.Naumova, T.P.Maksimova

TITLE: The effect of $TiCl_4$ on the polymerization of 1,3-cyclohexadiene in heptane solution

SOURCE: Akademiya nauk Belorusskoy SSR. Institut fiziko-organicheskoy khimii. Sbornik nauchnykh rabot. no.9.1961. Monomery, svoystva i protsessy polucheniya polimerov, 80-87

TEXT: The yields vary nearly linearly with $\sqrt{[TiCl_4]}$. In all experiments an insoluble polymer (30-50%) was also formed, the quantity being dependent on the conditions of the experiment. The molecular weights of the soluble polymers (determined cryoscopically) were dependent on both monomer and catalyst concentration. Highest molecular weights were observed at intermediate $TiCl_4$ concentrations (0.06-0.105 moles/liter). The molecular weights of the soluble polymers were found to be independent of the temperature of polymerization (temp. range studied: 0 to -40°C). All polymer

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S/786/61/000/009/004/006
I065/I242

The effect of $TiCl_4$ ...

samples studied were found to contain about 1 atom chlorine per molecule, indicating the direct participation of $TiCl_4$ in the initiation step. The molecular weights of the polymers formed in heptane solution were of the same order of magnitude as those obtained from polymerizations in other solvents. A polymerization scheme is suggested, based on the formation of a growing radical. Termination takes place by disproportionation of two growing chains. There are 2 figures and 4 tables.

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S/786/61/000/009/005/006
I065/I242

AUTHORS: B.V.Yerofeyev, S.F.Naumova

TITLE: The kinetics of the $TiCl_4$-initiated polymerization of 1,3-cyclohexadiene in toluene solution

SOURCE: Akademiya nauk Belorosskoy SSR. Institut fiziko-organicheskoy khimii. Sbornik nauchnykh rabot. no.9.1961. Monomery, svoystva i protsessy polucheniya polimerov, 88-95

TEXT: The polymerization of 1,3-cyclohexadiene in different solvents has been studied by Yerofeyev and co-workers [Ref. 1: Dokl. Akad.Nauk BSSR, 3, 95 (1959)]. In all the cases studied, polymers of rather low molecular weights (about one thousand) were obtained. In order to elucidate the reasons for the early termination of chain growth, kinetic studies of the polymerization were carried out at temperatures ranging from -70 to +20°C at cyclohexadiene concentrations of 5.7-6.6 moles/liter and $TiCl_4$ concentration of 0.017 to 0.16 moles/liter. Details of the polymerization technique are given in reference 3 [B.V.Yerofeyev, S.F.Naumova, T.P.Maksimova,

Card 1/2

S/786/61/000/009/005/006
I065/I242

The kinetics of the $TiCl_4$-initiated ...

Sb. nauchnikh rabot IFOKh, Akad.Nauk BSSR, no.9, 96 (1961)]. The rate of polymerization of 1,3-cyclohexadiene in toluene is approximately first order with respect to monomer (C_6H_8) concentration. The extent of polymerization was proportional to $[TiCl_4]^2$ and independent of the initial monomer concentration. The molecular weights of the polymers obtained in toluene was practically identical to those found for other solvents. There are 4 figures and 4 tables.

Card 2/2

S/786/61/000/009/006/006
I065/I242

AUTHORS: B.V.Yerofeyev, S.F.Naumova, T.P.Maksimova

TITLE: The polymerization of dialin

SOURCE: Akademiya nauk Belorusskoy SSR. Institut fiziko-organicheskoy khimii. Sbornik nauchnykh rabot. no.9.1961. Monomery, svoystva i protsessy polucheniya polimerov, 96-100

TEXT: In polymerization of cyclohexadiene under widely differing conditions only molecular weights in the range 500-4000 were obtained. In order to find out whether the high rate of chain transfer was caused by the cyclic structure of the cyclohexadiene molecule, dialin (dihydronaphthalene, $C_{10}H_{10}$) containing the cyclohexadiene structure, was chosen. Dialin was prepared by the dehydration of tetralol - 1,2,3,4-tetrahydro-β-naphthol. The polymerizations were carried out in a three-necked flask equipped with stirrer, gas inlet tube, and dropping funnel. The polymerizations were carried out at -75 to 0°C for 1 to 10 hrs. At the end of each experiment,

Card 1/2

The polymerization of dialin

the precipitation of the polymer and decomposition of initiation was achieved by the addition of 4 volumes of methanol. The polymer was purified by re-precipitation from benzene solution, and dried in vacuo at 40°C. In the reprecipitated polymer no traces of the catalyst were found. Two polymer fractions were isolated in all experiments: relatively high-mol.wt. fraction comprising 76-88% of the total, and a low-mol.wt. fraction (probably dimer and trimer) comprising 12-24%. The molecular weights were determined cryoscopically (in benzene). High yields (90-100%) were obtained in chloroform, and lower yields in heptane. In both solvents the molecular weights were practically identical (~ 600). The molecular weights obtained with a $TiCl_4$-$Al(iso\text{-}C_4H_9)_3$ complex were higher (~ 1000) than with $TiCl_4$ alone. The polymers of dialin are white amorphous powders, soluble in aromatic and chlorinated hydrocarbons. They are not oxidized on exposure to air and have a density of d_{20}^4 = 1.138. The absence of chlorine in all polydialin preparations and the lower molecular weights (independent of solvent composition) indicate that the mechanism of polymerization is different from that in cyclohexadiene. There is 1 figure and 1 table.

Card 2/2

S/250/62/006/005/007/007
I001/I002

AUTHORS: Yerofeyev, B. V., Naumova, S. F. and Tyukalo, L. G.

TITLE: Formation of benzene in themic polymerization of cyclohexadiene-1,3

PERIODICAL: Akademiya nauk Belaruskay SSR. Doklady, v. 6, no. 5, 1962, 313-315

TEXT: This is a continuation of a previous work on polymerization of cyclohexadiene-1,3 at temperatures 160°-200°C (B. V. Yerofeyev, S. F. Naumova, L. G. Tyukalo, Sb. nauchnykh trudov IFOKh, no. 9, 1961). In the present work the spectrophotometric investigation was applied to monomers obtained in experiments with different degrees of polymerization at various temperatures. It was established, that in the process of the chemical changes of cyclohexadiene-1,3 dimerization and polymerization to higher degrees are accompanied by a disproportionation. A formula is given for calculation of the amount of benzene in the monomeric products. There are 2 figures and 1 table.

ASSOCIATION: Institut fiziko-organicheskoy khimii AN BSSR (Institute of Physical-Organic Chemistry AS BSSR)

SUBMITTED: February 28, 1962

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S/020/62/147/001/016/022
B106/B101

AUTHORS: Yerofeyev, B. V., Academician AS BSSR, Naumova, S. F., Tsykalo, L. G.

TITLE: Products containing an odd number of monomer links, which form on the thermal polymerization of cyclohexadiene-1,3

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 147, no. 1, 1962, 106-107

TEXT: Monomer products contained in the crude polymerizate were spectrophotometrically studied in order to clarify the mechanism which underlies thermal polymerization of 1,3-cyclohexadiene. The content of a trimer product in the liquid portion of the polymerizate was determined. The monomer products contained 16.1 ± 3.9% benzene after an 8-hour polymerization at 180°C, and 21.8 ± 5.1% benzene after 10 hrs. After 2, 10, and 40 hrs polymerization at 200°C, the monomer products contained 47.1, 40.4, and 23.5% benzene respectively. At polymerization temperatures of 140, 150, and 160°C no benzene resulted. The molecular weight of the liquid part of the polymer, separated by methanol, was determined cryoscopically in order to calculate the amount of trimer in the polymerizate. The resulting values (160-240) indicate that the liquid part of the polymer

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contained only dimer and trimer. The trimer percentage α changes between 0.6% (10-hr polymerization at 140°C) and 11.1% (70-hr polymerization at 160°C). The results show that active monomer radicals form on thermal polymerization of 1,3-cyclohexadiene, which either add to a dimer so as to produce a trimer, or else disproportionate into benzene. The first stages of polymerization are:

$$C_6H_8 + C_6H_8 \longrightarrow C_6H_7^{\bullet} + C_6H_9^{\bullet} \qquad (1)$$

$$C_6H_7^{\bullet} \text{ (or } C_6H_9^{\bullet}) + C_6H_8 \longrightarrow C_6H_7 \cdot C_6H_8^{\bullet} \text{ (or } C_6H_9 \cdot C_6H_8^{\bullet}) \quad (2) \text{ etc.}$$

Disproportionation may occur simultaneously with reaction 2:

$$C_6H_7^{\bullet} + C_6H_8 \longrightarrow C_6H_6 + C_6H_9^{\bullet} \quad (3)$$

$$C_6H_7^{\bullet} + C_6H_9^{\bullet} \longrightarrow C_6H_6 + C_6H_{10} \quad (4).$$

The polymerization mechanism assumed by P. S. Shantorovich and I. A. Shlyapnikova (Vysokomolek. soyed., 4, 1369 (1961)) which first yields dimer biradicals recombining into the polymer, is therefore impossible. There

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is 1 table.

ASSOCIATION: Institut fiziko-organicheskoy khimii Akademii nauk BSSR (Institute of Organic Physical Chemistry of the Academy of Sciences BSSR)

SUBMITTED: June 4, 1962

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S/250/63/007/002/006/008
A059/A126

AUTHORS: Naumova, S. F., Tsykalo, L. G., Dudina, G. S.

TITLE: The kinetics of thermal polymerization of cyclohexadiene-1,3 at 130 to 160°C

PERIODICAL: Doklady Akademii nauk BSSR, v. 7, no. 2, 1963, 99 - 102

TEXT: The separate amounts of dimers, trimers, and higher polymers formed in the course of thermal polymerization of cyclohexadiene at 130 to 160°C, and during thermal polymerization in benzene and cyclohexadiene at 160°C for 50 hours have been determined. The experimental methods used have been described before (Sb. nauchnykh rabot IFOKh AN BSSR (Collection of Scientific Papers of the IFOKh, AS BSSR), v. 9, 1961, p. 71). The molecular weights of the solid polymer decrease with increasing temperature and depend only little on the time of reaction. The portion of the dimer (β) at constant temperature is independent of the initial concentration of cyclohexadiene-1,3 which shows that the intermediate product forming in one of the first stages of the reaction undergoes monomolecular reaction with the probability ratio of conversion of this intermediate to yield the

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dimer or a higher polymer remaining constant. One of the stages of the reaction should be therefore

$$C_{12}H_{16}^{*} \nearrow C_{12}H_{16}$$
$$\searrow C_{12}H_{16}^{**}$$

where $C_{12}H_{16}^{*}$ is the active dimer intermediate, $C_{12}H_{16}$ the inactive dimer (extracted product), and $C_{12}H_{16}^{**}$ the new active intermediate capable of adding a new monomer molecule. The most satisfactory results were obtained with the formulas:

$$\alpha_{dimer} = KC_o^{1/2} \quad (1)$$

or

$$[a]_{dimer} = KC_o^{3/2} \quad (2)$$

where α is the portion of dimerized cyclohexadiene-1,3, and [a] the dimer concentration obtained after 50 hours of polymerization. Hence, no monomer products (including benzene) are formed in the thermal polymerization of cyclohexadiene-1,3 at temperatures of up to 160°C following formula (2) which cannot be derived from the previously assumed polymeriz tion mechanisms of this substance.

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S/250/63/007/002/006/008
A059/A126

The kinetics of thermal polymerization of...

There are 1 figure and 4 tables.

ASSOCIATION: Institut fiziko-organicheskoy khimii AN BSSR (Institute of Physical and Organic Chemistry of the AS BSSR)

PRESENTED: by B V. Yerofeyev, Academician of the AS BSSR

SUBMITTED: June 26, 1962

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KHACHATUROV, A.S.; BAZHENOV, N.M. [deceased]; NAUMOVA, S.F.; TSYKALO, L.G.; YEROFEYEV, B.V.

Nuclear magnetic resonance spectra and structure of oligomers of 1,3-cyclohexadiene. Dokl. AN BSSR 7 no.7:459-463 Jl '63. (MIRA 16:10)

1. Institut fiziko-organicheskoy khimii AN BSSR i Institut vysokomolekulyarnykh soyedineniy AN SSSR.